

IN THE  
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Yakhini, Kincaid, Ben-Dor, Leonard and Sampas

Serial No.:

Examiner:

Filing Date: April 3, 2004

Group Art Unit:

Title: VISUALIZING EXPRESSION DATA ON CHROMOSOME GRAPHIC SCHEMES

COMMISSIONER FOR PATENTS

PO Box 1450

Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

This Information Disclosure Statement is submitted:

- ☒ under 37 CFR 1.97(b), or  
(Within three months of filing national application; or date of entry of national application; or before mailing date of first office action on the merits; whichever occurs last)
- ☐ under 37 CFR 1.97(c) together with either a:  
☐ Statement under 37 CFR 1.97(e), or  
☐ a \$180.00 Processing fee under 37 CFR 1.17(p), or  
(After the CFR 1.97 (b) time period, but before final action or notice of allowance, whichever occurs first)
- ☐ under 37 CFR 1.97 (d) together with a:  
☐ Statement under 37 CFR 1.97(e), and  
☐ a \$180.00 processing fee under 37 CFR 1.17(p).  
(Filed after final action or notice of allowance, whichever occurs first, but before payment of the issue fee)

Please charge to Deposit Account **50-1078** the sum of \$0.00. At any time during the pendency of this application, please charge any fees required or credit any overpayment to Deposit Account **50-1078** pursuant to 37 CFR 1.25.

☒ Applicant(s) submit herewith Form PTO 1449. References identified with an asterisk (\*) were disclosed in Patent Application No. \_\_\_\_\_ filed \_\_\_\_\_, now U. S. Patent No. \_\_\_\_\_, and, as such, copies thereof are not included pursuant to the provisions of 37 CFR 1.98(d).

☐ A concise explanation of the relevance of foreign language patents, foreign language publications and other foreign language information listed on PTO Form 1449, as presently understood by the individuals(s) designated in 37 CFR 1.56 (c) most knowledgeable about the content is given on the attached sheet, or where a foreign language patent is cited in a search report or other action by a foreign patent office in a counterpart foreign application, an English language version of the search report or action which indicates the degree of relevance found by the foreign office is listed on form PTO 1449 and is enclosed herewith.

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Date of Deposit **April 3, 2004**

I hereby certify that this is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to: Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450.

By Maria J. Sousa

Typed Name: Maria J. Sousa

Respectfully submitted,

**Yakhini, Kincaid, Ben-Dor, Leonard and**

By Alan W. Cannon

**Alan W. Cannon for Mike Beck**

Attorney/Agent for Applicant(s)

Reg. No. **34,977**

Date: **April 3, 2004**

Telephone No.: **(408) 736-3554**

FORM PTO-1449

LIST OF PATENTS AND PUBLICATIONS FOR  
APPLICANT'S INFORMATION DISCLOSURE  
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(Use several sheets if necessary)

ATTY. DOCKET NO.

10020503-2

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APPLICANT

Yakhini et al.

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## REFERENCE DESIGNATION

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	*	DOCUMENT NUMBER	DATE	NAME

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	NAME	TRANSLATION	
					YES	NO

## OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

1	Pollack et al., "Microarray analysis reveals a major direct role of DNA copy number alteration in the transcriptional program of human breast tumors" PNAS, October 1, 2002, vol. 99, no. 20, 12963-12968
2	Hedenfalk et al., "Molecular classification of familial non-BRCA1/BRCA2 breast cancer", PNAS, March 4, 2003, vol. 100, no. 5, 2532-2537
3	Ben-Dor et al., "Class Discovery in Gene Expression Data", Fifth Annual International Conference on Computational Molecular Biology, 2001, pp. 31-38

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DATE CONSIDERED

\* Copies of these references are not enclosed pursuant to 37 CFR 1.98(d). (See accompanying IDS)

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4	Ben-Dor et al., "Tissue Classification with Gene Expression Profiles", J. Computational Biology, 2000, pp. 1-32
5	Fujii et al., "A Preliminary Transcriptome Map of Non-Small Cell Lung Cancer", Cancer Research 62, 3340-3346, June 15, 2002
6	NCBI LocusLink, <a href="http://www.ncbi.nlm.nih.gov/LocusLink/">http://www.ncbi.nlm.nih.gov/LocusLink/</a> , downloaded April 3, 2003

EXAMINER

DATE CONSIDERED

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<b>FORM PTO-1449</b>  <b>LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT</b>  (Use several sheets if necessary)	ATTY. DOCKET NO.	SERIAL NO.
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	FILING DATE	GROUP
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7	NCBI Entrez Genome, <a href="http://www.ncbi.nih.gov/mapview/map_search.cgi?taxid=9606">http://www.ncbi.nih.gov/mapview/map_search.cgi?taxid=9606</a> , pp 1-2, downloaded April 3, 2004
8	NCBI Entrez Genome, "Homo sapiens genome data and search tips", <a href="http://www.ncbi.nlm.nih.gov/cgi-bin/Entrez/static/humansearch.html">http://www.ncbi.nlm.nih.gov/cgi-bin/Entrez/static/humansearch.html</a> , pp 1-30, downloaded November 22, 2002.
9	Silicon Genetics, "Analysis, Clustering and Predictive Tools", <a href="http://www.silicongenetics.com/cgi/SiG.cgi/Products/GeneSpring/tools.smf">http://www.silicongenetics.com/cgi/SiG.cgi/Products/GeneSpring/tools.smf</a> , p.1, downloaded 7/15/02

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					YES	NO

## OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

10	Silicon Genetics, "Filtering Tools", <a href="http://www.silicongenetics.com/cgi/SiG.cgi/Products/GeneSpring/filter.smf?">http://www.silicongenetics.com/cgi/SiG.cgi/Products/GeneSpring/filter.smf?</a> , p. 1, downloaded 7/15/02
11	Silicon Genetics, "Predictive Tools (Machine Learning Algorithms)", <a href="http://www.silicongenetics.com/cgi/SiG.cgi/Products/GeneSpring/predict.smf?">http://www.silicongenetics.com/cgi/SiG.cgi/Products/GeneSpring/predict.smf?</a> , p. 1, downloaded 7/15/02
12	Silicon Genetics, "Hierarchical Clustering: Tree Building", <a href="http://www.silicongenetics.com/cgi/SiG.cgi/Products/GeneSpring/trees.smf?">http://www.silicongenetics.com/cgi/SiG.cgi/Products/GeneSpring/trees.smf?</a> , p. 1, downloaded 7/15/02

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## OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

13	Silicon Genetics, "k-means Clustering", <a href="http://www.silicongenetics.com/cgi/SiG.cgi/Products/GeneSpring/Kmeans.smf?">http://www.silicongenetics.com/cgi/SiG.cgi/Products/GeneSpring/Kmeans.smf?</a> , p. 1, downloaded 7/15/02
14	Silicon Genetics, "Self-organizing Maps", <a href="http://www.silicongenetics.com/cgi/SiG.cgi/Products/GeneSpring/SOM.smf?">http://www.silicongenetics.com/cgi/SiG.cgi/Products/GeneSpring/SOM.smf?</a> , p. 1, downloaded 7/15/02
15	Silicon Genetics, "Principal Components Analysis", <a href="http://www.silicongenetics.com/cgi/SiG.cgi/Products/GeneSpring/PCA.smf?">http://www.silicongenetics.com/cgi/SiG.cgi/Products/GeneSpring/PCA.smf?</a> , pp. 1-2, downloaded 7/15/02

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## OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

16	Silicon Genetics, "Regulatory Sequence Search", <a href="http://www.silicongenetics.com/cgi/SiG.cgi/Products/GeneSpring/RegSeq.smf?">http://www.silicongenetics.com/cgi/SiG.cgi/Products/GeneSpring/RegSeq.smf?</a> , p. 1, downloaded 7/15/02
17	Silicon Genetics, "Similarity Metrics", <a href="http://www.silicongenetics.com/cgi/SiG.cgi/Products/GeneSpring/sim_metrics.smf?">http://www.silicongenetics.com/cgi/SiG.cgi/Products/GeneSpring/sim_metrics.smf?</a> , p. 1, downloaded 7/15/02
18	"GeneSpring", <a href="http://www.silicongenetics.com">www.silicongenetics.com</a> , pp. 1-2, downloaded 11/22/2002

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## OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

19	Silicon Genetics, "Tech Notes", <a href="http://www.silicongenetics.com/cgi/MasterPFP.cgi?doc=http://www.silicongenetics.com/c...">http://www.silicongenetics.com/cgi/MasterPFP.cgi?doc= http://www.silicongenetics.com/c...</a> , 5 pages, downloaded 11/22/2002

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